Amendment to the Specification:

Please replace the paragraph appear at Page 1, lines 10-15, with the following amended paragraph:

BDDs are effectively deployed in many EDA (Electronic Design Automation) tools, in particular in the area of formal verification. A plethora of public domain BDD packages is available on the web (see Meinel, Ch. Wagner, A., "WWW.BDD-PORTAL.ORG", Proc. IEEE IWLS [Institute of Electrical and Electronics Engineers; International Workshop on Logic and Synthesis], pp. 341-348, 2000; [http://]www.bdd-portal.org).

Please replace the paragraph appear at bridging Pages 2-3 with the following amended paragraph:

Other disadvantages have been observed in connection with prior efforts. Long 1998, *supra,* does not address dynamic variable ordering. The BDDs as implemented in earlier versions of SMV (Symbolic Model Verifier) (see K. L. McMillan, Symbolic Model Checking, Kluwer, 1993), do not use node reference counts; a mark-sweep garbage collector is used. For variable reordering an algorithm by R. Rudell (R. Rudell, "Dynamic variable ordering for ordered binary decision diagrams", Proc. ICCAD, pp. 42-47, 1993) is employed, but SMV does excessive BDD traversals to calculate accurate live node counts because no explicit reference counts are used. A package called ABCD (Biere, Armin, ABCD: a compact BDD library, [http://]www.inf.ethz.ch/personal/biere/projects/abcd, 2000) focuses on compactness of

representation (only 8 bytes per node) and uses indices to achieve this. It does not take advantage of the node order and does not offer dynamic variable ordering. Also its memory management is rather rigid.

Please replace the paragraph appear at Page 22, lines 9-17, with the following amended paragraph:

Two sets of experiments are presented here. They were run on an IBM 200MHz Power3 machine. First it is shown how a BDD package in accordance with the present invention compares to CUDD 2.3.0 (see F. Somenzi, "CUDD: CU Decision Diagram Package Release", [ftp://]vlsi.colorado.edu/, 1998). Next the results are shown for some industrial designs comparing the new package to the existing pointer-based package (by the same author). In Figure 4, the CPU time in seconds for *CUDD* (bars) and *BDD* (spikes) is plotted for the 48 DLX2 benchmarks, prepared by Velev, Miroslav N., "Superscalar Suite 1.0", [http://]www.ece.cmu.edu/~mvelev, 1999, in trace form (see Yang, *supra*).